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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,009	05/19/2006	Xabier Gorritxategi Retolaza	15220.854US01	7748
81236	7590	04/15/2010	EXAMINER	
Berenbaum Weinshienk PC 370 Seventeenth Street Republic Plaza, Suite 4800 Denver, CO 80202			ALI, MOHAMMAD M	
			ART UNIT	PAPER NUMBER
			3744	
			NOTIFICATION DATE	DELIVERY MODE
			04/15/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pscul@bw-legal.com  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/580,009	<b>Applicant(s)</b> RETOLAZA ET AL.	
	<b>Examiner</b> MOHAMMAD M. ALI	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 8-10 is/are rejected.
- 7) ☒ Claim(s) 2-7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                     |                                                                   |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                         | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Winnington et al (US 6,263,682) in view of Gray (US 3,508,402). Winnington et al disclose a rotary absorption heat pump that comprises a rotary unit (10) that comprises a vapor generator (20), a condenser (24/34), an evaporator (42) and an absorber (40) interconnected to constitute fluid flow trajectories for a volatile fluid component and a liquid absorbing it (See Figs. 1 and 2), the heat pump also comprising heat transmission means for transmitting heat to the vapour generator (20), wherein said heat transmission means comprise a heat exchanger (38) disposed in the rotary unit (10) through which a hot fluid flows (See column 14, lines 1-10), said heat transmission means also comprising adaptor means (the pipe 114 connection

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connecting between vapor absorber 40 and exchanger 38 and vapor generator 20, Fig. 5) in order to transfer said hot fluid from a static environment to said heat exchanger (38). See Figs. 1-2 and 5, column 10, line 5 to column 12, line 55, column 13, lines 15-31, column 14, and lines 1-10.

Winnington et al disclose the invention substantially as claimed as stated above except an external heat source to heat a fluid externally to a rotating member and supplying the heated fluid to the interior of the rotating member for to a heat exchanger to generate vapor internally. Gray teaches the use of an external heat source (65) to supply heated fluid to the rotating drum surfaces of drums 51 and 58 to heat the surfaces of the drums to generate vapor inside the rotating drums. See Figs 2a-2b; 3a-3b; column 4, line 20 to column 6, line 41.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the rotary heat pump of Winnington et al in view of Gray such that an external heat source could be provided to heat a fluid medium and circulate in to the rotating drum to generate vapor.

Claims 8-10 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Winnington et al in view of Christensen et al (US 5,617,737). Winnington et al Gray discloses the invention substantially as claimed as stated above except spiral tube heat exchanger with internal and external fins. Christensen et al teach the use of a heat exchanger having a spiral tube (See Figs. 11-13), the heat exchanger (10) having exterior fin/crest (18) and interior fin/crest (26) See Fig. 1 in a heat transfer device for the purpose of exchanging heat in an efficient manner. Therefore, it would have been

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obvious to one having ordinary skill in the art at the time the inventions was made to modify the rotary heat pump of Winnington et al and Gray in view of Christensen et al such that a spiral heat exchange tube with internal and external fin could be provided in order to exchange heat in an efficient manner.

Regarding claim 9, nickel-plated copper made heat exchanger is well known in the art and used for avoid corrosion and better heat exchange property as copper being more conductive. Therefore, choosing the nickel-plated heat exchanger is an obvious design choice of an individual as the device is well known in the art.

Regarding claim 10, Christensen et al disclose that the mid part of heat exchanger tube as shown in Figs. 18-23 is in direct contact with air for better heat exchange purpose.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Winnington et al, Gray and Christensen et al as applied to claim 8 above, and further in view of Nobuyuki et al (JP 2000-274831 A). Winnington et al, Gray and Christensen et al disclose the invention substantially except nickel-plated copper made heat exchanger. Nobuyuki et al teach the use of a heat exchanger (6) made of nickel-plated copper in heat exchanging apparatus for the purpose of efficiently exchanging heat with high corrosion resistance property. See the abstract.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the rotary heat pump of Winnington et al, Gray and Christensen et al in view of Nobuyuki et al such that a nickel-plated copper

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made heat exchanger could be provided in order to exchange heat in an efficient manner with a corrosion resistance property.

Claim is rejected under 35 U.S.C. 103(a) as being unpatentable over Winnington et al, Gray as applied to claim 8 above, and further in view of Ramshaw et al (US 5,009,085). Winnington et al and Gray disclose the invention substantially except a condenser disposed direct contact with the environment external to the rotary unit. Ramshaw et al teach the use of a condenser (CO) disposed direct contact with the environment external to the rotary assembly/unit. See Fig. 2, lines 8-9.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the rotary heat pump of Winnington et al and Gray in view of Ramshaw et al such that a condenser could be provided exterior to the rotating assembly in order to exchange heat with outside environment of the rotating assembly/unit.

### ***Allowable Subject Matter***

Claims 2-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn and the prosecution reopened.

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Applicant's arguments, see remark, filed 03/29/10, with respect to the rejection(s) of claim(s) 1-10 under 103(a) have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the argument that the claims 2-7 have not been addressed. The argument for rejections for claims 1, and 8-10 are not persuasive as narrated in the rejections above.

Applicant's arguments with respect to claims 1, and 8--10 have been considered but are moot in view of the new ground(s) of rejection as explained above.

.Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD M. ALI whose telephone number is (571)272-4806. The examiner can normally be reached on maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mohammad M Ali/  
Primary Examiner, Art Unit 3744